

Abstract of the Disclosure

A serial peripheral interface apparatus has a second parallel write buffer to load in a subsequent data
5 byte while a current data byte is being transferred
serially through the apparatus instead of waiting for the
previous data byte to complete the serial transfer and
other commands to avoid write collision. The subsequent
data byte is transferred into the second parallel write
10 buffer only after the software driven CPU examines the
status of a load enable and the status of a write buffer
provided by a finite state machine controller. The
software driven CPU orders the subsequent data byte to be
transferred into the second parallel write buffer when
15 the load enable is favorable and the second parallel
write buffer is available. The load enable becomes
favorable when a bit counter counts the first half of the
transfer of the previous data set. Thus, the second
parallel write buffer avoids the stretching the master
20 clock and improves data throughput of the system.